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THE DEVELOPMENT OF AMERICAN WATERWAYS.

BY FRANCIS G. NEWLANDS, UNITED STATES SENATOR.

THE Inland Waterways Commission was the outgrowth of a sentiment which has for some time been developing and a consequent agitation, particularly in the Mississippi Valley, demanding the improvement, connection and extension of our national waterways. Before yielding to the pressure brought upon him to make suggestions to the Congress on the subject, the President determined upon exhaustive investigation and appointed an executive commission for the purpose and recommend a plan. Into this commission he gathered men who, in either administrative or legislative work, had already acquired a large experience in the problems relating to the waterways of the country. That commission is now engaged in framing a preliminary report to the President and has not yet reached its final conclusions; so that I wish to state at the outset that whatever I may say on the subject is not to be accepted as the conclusion of the commission, but as expressing my individual view.

The duty imposed upon this commission was to study the use of our waters and investigate the entire subject, not only as pertaining directly to navigation, but for all other purposes as well, in order to recommend to the President a full and comprehensive plan for the development and utilization of all the natural resources of the country relating to water, with the primary purpose of facilitating water transportation.

Everywhere else in the world water transportation is an important factor in both foreign and domestic commerce. In Germany, where there is perhaps the best system of transportation in the world, the rivers have been artificialized from source to mouth and are supplemented by a system of canal, rail and ocean

transportation which in regulated combination gives the country a machinery unequalled anywhere in the development of foreign and domestic commerce. It is evident to any one with ordinary information that our waterways must be utilized again, and to be utilized they must be properly artificialized, their beds must be made stable, their courses sure for the transportation of bulky merchandize. Even the great railway managers now acknowledge it and are urging the development of our waterways. This is a decided change since a few years ago, when a noted railway man is said to have declared that water competition could not exist in this country and that if he were given the money with which to build a double-track road beside the proposed enlarged Erie Canal, he would turn the canal into a lily-pond. The views of these men are changing because it has been so graphically demonstrated that they must either expend vast sums of money in improvements—money which in the present unsettled conditions of railways they cannot obtain—or else call in the aid of water transportation.

The movement to improve the waterways represents a policy, not a project. It is improbable that any particular river will be selected for development. There must be assurance that all rivers requiring improvement shall come into one comprehensive plan, involving, ultimately, the creation and highest development of all possible waterways that will materially aid our foreign and domestic commerce. The attention of the whole country has been arrested. I never knew the people to be more universally interested and better united. There is practically no difference of opinion as to the necessity of improving our inland waterways. The vital point at this juncture is to give effective direction to the aroused public sentiment, by making plain to all the true scope of the subject and the great importance of scientific legislation which shall carry out broad and comprehensive plans, without which the undertaking can never succeed. Congress rarely creates public opinion. It records public opinion. The real argument of the legislator who wishes to do something in a businesslike way, should go to the country, not to Congress. Congress seldom takes the initiative. It follows rather than leads public opinion. It is fortunate, therefore, that the agitation for a deep waterway from the Lakes to the Gulf has reached such proportions as to create a general demand from all parts of the

country that a broad and comprehensive plan be inaugurated for the improvement of all navigable waters, and a call for legislation creating a fund for uninterrupted work and a fair apportionment between the different sections of the country under a businesslike administration.

It would have startled the country some time ago, perhaps, if it had been asserted that a hundred million dollars, annually, for the next five years, should be expended in this work. But it ought to be expended, in order to meet the requirements of transportation, and the public mind is becoming accustomed to it. We must also bear in mind that after it is expended the business of the railroads will not be injured. They will still have more than they can carry and their carriage will be better compensatory than the cheap and bulky products which now congest the systems. If then we add an ocean service to the railways and the canal and waterway systems, in harmonious co-operation under wise national legislation, we shall have a machinery which will accomplish marvellous results for the country. It can be done. It must be done. We shall have a system of navigable rivers, of coastal canals and sheltered waterways that will connect Maine with Texas and Texas with the Lakes; and all of these works, from the Atlantic to the Pacific, should be commenced and prosecuted contemporaneously, and pushed forward in a thoroughly businesslike manner and without unnecessary restrictions by a competent service, such as has given vitality and effectiveness to the work on the Panama Canal and in the Reclamation Service. With this end in view I am now urging upon Congress a bill for the establishment of such a commission and a working fund of fifty million dollars, to be renewed by the issue of bonds when it falls below twenty millions.

A comprehensive plan for the development of our waterways of necessity takes into consideration all of the related questions of forest preservation and restoration, of the irrigation of arid lands, of the reclamation of swamp lands, of bank protection, of clarification of streams and other kindred subjects, as well as of canal construction. It does not mean simply getting a dredging machine for the purpose of removing sandbars, and digging a channel. It involves the prevention of floods, when the rivers rush down in torrential streams, destroying property, and then, having wasted the water in the ocean, are attenuated till boats

cannot float upon them. It involves the preservation of forests, because forests are the great conservators of moisture and aid in its gradual distribution to the rivers. It involves the question of irrigation of arid lands at the head waters of our inland rivers—the creation of great reservoirs, where the flood waters can be impounded and led over the plains for purposes of irrigation, to be gradually returned to the rivers when most required by them. Where it cannot be advantageous to irrigation the water can be kept impounded—as is now done in the upper Mississippi and in some foreign countries—to be let out at a time of low water in such a manner as to maintain navigation throughout the summer.

Forestry and irrigation are both essential to the prevention of floods and soil waste and to the maintenance of a stable channel for navigation, besides creating vast money values and great happiness and comfort in the development of immense forests and broad plains irrigated to almost unlimited productiveness. The artificializing of a river means that it shall be kept at a standard depth, to accommodate vessels of standard draft, just as there is a standard gauge for railroads.

Another item which, wholly aside from transportation, will prove of inestimable value, is the clarification of the rivers. Few realize as they ought how our continent is wasting through the drift of soil down the great rivers. The Mississippi has built another great delta at its mouth, like the delta on which the city of New Orleans stands, where alluvial soil is 1,200 feet deep. In time, the Gulf of Mexico will be turned into a continent by this process. Every grain of sand in a river is a tool of destruction. Clear water cuts the banks but little, but in the great rivers that pass through alluvial bottoms the banks dissolve like sugar when the force of the water loaded with particles of soil is directed against them. Then, when the waters become less turbulent and deposit the burden, it forms banks and bars, obstructing navigation. As the rivers are also a source of domestic water-supply for the cities and towns along the banks, the benefit of clarification through bank protection and the prevention of soil waste extends still further.

It also involves the reclamation of swamp lands, which means the addition of large and immensely fertile areas to the productive resources of the country. The reclamation of swamp lands as such is not one of the powers of Government granted by the

Constitution, but the control of the river for purposes of navigation is, and for this purpose the redemption of vast swamps, along the lower reaches of the rivers, is as much a function of the Government as the irrigation of arid and semi-arid wastes at the source of the rivers. The channels fill up because where there are broad stretches of lowland, over which the river spreads, in high water, the river channel is lost in a network of bayous and swamps. When confined in comparatively narrow channels, by means of levees, the current is restrained and quickened and becomes an effective power in scouring instead of clogging the bottom, and in preserving the channel; so that we have inseparably connected with the question of navigation, the redemption of swamp lands and bank protection.

All of the advantages to be derived are so important that it is difficult to say which should be placed first. It is perfectly evident that for the proper development of our waterways we must embrace in one comprehensive plan the treatment of our forests, the irrigation of our arid lands, the reclamation of our swamp lands, bank protection and clarification of our rivers. In doing this other vast benefits will accrue; great water power will be developed and immense tracts of now unavailable soil will be made phenomenally productive. I will only suggest, here, the legitimate returns which the Government may justly receive, greatly reducing the original cost. It is estimated, for example, that with many of our large rivers the power which will be developed will be sufficient to pay the entire cost of improvement. We should not lose sight of these related advantages which will, eventually, very greatly reduce the original cost and make the enterprise efficient for other public good.

Of course there follows then the grave question: can our river commerce be revived; can we restore these waterways as a part of the efficient machinery of the country's transportation? Many doubt it, and I confess that when I went down the Mississippi, last summer, and travelled for miles without seeing a single boat, I was inclined to doubt it, too. The river towns were neglected. The wharves were rotting. The river fronts were largely occupied by the tracks of railroads whose trains, running at frequent intervals along the banks, showed how thoroughly they had absorbed the commerce. The terrific competition of the railroads, underbidding the water carriers during the season and raising the

rates when navigation ceased and the neglect of the Government in maintaining navigable streams, brought about the present condition; but I believe that the people, the railroads and the Government realize the mistake and that it can be remedied. It will be necessary, however, that the railroads be brought into intimate relations with the river carriers, so that one system shall supplement and aid, not injure and obstruct, the other. I believe that the waterway ought to be largely supplemental to the railway system and that it will become necessary to it. The regulation of interstate commerce is one of the important functions of the Government and as the need of legislation increases better attention will be given to the whole subject.

The chief difficulty of the enterprise really lies in the great difference of opinion which is sure to exist at the start. The country is practically united as to the necessity for the undertaking, but the machinery for setting it in motion has not yet been carefully considered and already there is divided counsel. In the legislation inaugurated for the Panama Canal Service and the Reclamation Service, the Executive was wisely given a free hand and by the process of evolution a great administrative organization has been built up in each service and the work is conducted on thoroughly businesslike principles. I have endeavored to follow this beneficent legislation as well as that relating to Irrigation in the bill which I have recently introduced in the Senate, putting the whole responsibility for the development of the waterways upon the President, whoever he may be, sure that his highest pride will be to carry out successfully and economically the great work intrusted to him. To put the Executive in a legislative strait-jacket would surely result in inefficiency and failure. I believe that Congress has attended too much to administrative matters and the very reason of much of our inefficiency in our work upon our rivers and harbors has been that Congress has sought to control the administrative work and has done it badly. It always will do it badly.

The ways and means of execution is a far more serious question than the final result. The demand for national action in water transportation, when the work is ready for it, will lead to national action in rail transportation and finally to the creation of national corporations for all the great interstate transportation. It is time we realized that three-fourths of the transportation of

the country is already interstate; that our railroads are being operated regardless of State lines; that the State legislations under which various sections are controlled are disjointed, illogical and illusive; that complexity, confusion and insecurity to investors and shippers is the result of the present system. We have not yet begun to think and act scientifically on this subject. We have allowed ourselves to drift, and the present system is but a makeshift and an accident. It is not a question, to-day, whether the railroads shall be nationalized, for they nationalized themselves long ago. It is only a question whether we shall allow lesser sovereigns to assume the function which the nation has neglected, of creating the nation's agents for the transportation of interstate and foreign commerce.

I know that the mere suggestion rouses the cry of Centralization! But would any one, to-day, advocate a process of decentralization? Would any one attempt to divide these systems up into the units of which they were once composed, each comprised within State lines? Certainly not. Then why not legalize them under proper restraints, and the waterways with them, under the direct control of the only sovereign capable of dealing with them? "Centralization"? I should say "Unionization." The exercise of the granted powers of the Constitution does not involve centralization of power. It involves simply the unionizing of the forces of the people of the entire country in matters clearly intrusted to the Government of the United States. The nation is not a separate entity, afar off. The States constitute the Union. They entered into it for certain beneficent purposes, one of the chief of which is the advancement of interstate and foreign commerce. It involves the absolute control of the great corporate carriers who ought to be the servants of the whole nation, and when this is accomplished there will be no difficulty in harmonizing the interests of railroads and waterways, reviving our river, canal and ocean transportation, perfecting an imperfect though the greatest railway system on earth, as well as promoting the highest development of our forestry, of irrigation, of swamp-land reclamation, of water power, of the clarification and proper banking of our rivers, and relieving the great and growing congestion of our present transportation facilities.

All this can and will be accomplished in the near future.

FRANCIS G. NEWLANDS.